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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|-------------|----------------------|---------------------|------------------|
| 10/529,292 | 03/25/2005 | Takeshi Konno | CSP-111-A | 1998 |
| 21828 | 7590 | 03/13/2007 | | |
| CARRIER BLACKMAN AND ASSOCIATES | | | EXAMINER | |
| 24101 NOVI ROAD | | | AMAYA, CARLOS DAVID | |
| SUITE 100 | | | | |
| NOVI, MI 48375 | | | ART UNIT | PAPER NUMBER |
| | | | 2836 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/13/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

T.H

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/529,292 | KONNO, TAKESHI | |
| | Examiner | Art Unit | |
| | Carlos Amaya | 2836 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,7,10,12,18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,7,10 and 12 is/are rejected.
- 7) ☒ Claim(s) 18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/08/2007, 09/18/2006, 2/4/07</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to Amendments filed on 12/27/2006.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 7, 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner (US 6,194,997) in view of Desai (US 6,236,850).

With respect to claim 1 Buchner discloses an electronic key system for a vehicle (Antitheft system Figure1) including a controller (Control unit 1) mounted in the vehicle and a portable transceiver (Key 9, is a code transmitter capable of receiving and transmitting coded signals. Since it functions as a transceiver Key 9 is called a portable transceiver, Column 3 lines 42-46) carried by a user of the vehicle, the vehicle comprising a locking unit (Door locks 2, tailgate lock 3) which locks the vehicle so that use of the vehicle is not possible until a lock release command is received (Column 3, lines 53-58), and wherein the controller comprises: a transmission circuit (transmission circuit include in the control unit 1) that outputs a request signal (Column 3 lines 14-15, and lines 40-41) to the portable transceiver; a receiving circuit (control unit 1 is a transceiver unit, which includes transmission and receiving circuits) that receives an acknowledgement signal from the portable transceiver; a transmitter that outputs the request signal via the transmission circuit to the portable transceiver in response to an

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ON operation of a switch which detects when the user has boarded the vehicle (monitoring device, which includes a seat occupation detection device, ultrasonic sensors or infrared sensors detect the presence of a person in the interior, col. 2 lines 23-32, in response to the monitoring device the transceiver unit in the vehicle detects/communicates with the portable transmitter col. 2 lines 1-7); a receiver which receives the acknowledgement signal via the receiving circuit, the acknowledgement signal being outputted from the portable transceiver in response to the request signal from the transmitter (col. 4 lines 7-15, in response the monitoring device communication is started between control unit 1 and the portable transceiver), a drive unit (a drive unit is inherently provided, since locking and unlocking is performed, there is also a mechanism that releases the steering lock or immobilizer) which, when the acknowledgement signal is compared and judged to be a request from the user, outputs a lock release command to the locking unit; (Column 3 lines 53-55).

However, Buchner does not disclose expressly that an interrupting unit controller which interrupts, if the vehicle is not started for a specified period of time, a supply of power to the transmission circuit and the receiving circuit inside the controller, and an interrupting unit controller which permits a switching unit to supply power to the transmission circuit and the receiving circuit in response to an ON operation of the switch.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period, and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON

mode, a sleep mode and a duty-cycling mode (control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41). The sleep mode and the duty-cycling mode are entered when a pre-determined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 5 Buchner discloses an electronic key system for a vehicle comprising a controller mounted in the vehicle (Control unit 1, Figure 1) and a portable transmitter (Key 9) carried by a user of the vehicle, the vehicle containing a locking unit (Control Unit 1 performs the locking and unlocking of door locks 2,3, Column 3 lines 47-52) which locks the vehicle the so that the vehicle cannot be used until a lock release command is received (Column 3 lines 53-58), the portable transmitter (Key 9) comprising a transmitter unit that outputs a request signal (Column 3 lines 14-15, lines

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40-41) to the controller in response to operation input by the user (Column 3 lines 36-38), and wherein the controller comprises: a receiving circuit (Control unit 1 has the capabilities of sending and receiving signals, Column 3 lines 14-15) that receives the request signal from the portable transmitter; a receiver which receives via the receiving circuit the request signal from the portable transmitter in response to an ON operation of a switch which detects that the user has boarded the vehicle; a drive unit which outputs a lock release command to the locking unit when the request signal is compared and judged to be a request from the user (Column 3 lines 53-55).

However, Buchner does not disclose expressly that an interrupting unit controller which interrupts, if the vehicle is not started for a specified period of time, a supply of power to the transmission circuit and the receiving circuit inside the controller; and an interrupting unit controller which permits a switching unit to supply power to the transmission circuit and the receiving circuit in response to an ON operation of the switch.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period (as disclosed in the background), and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON mode, a sleep mode and a duty-cycling mode (control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41,

see abstract). The sleep mode and the duty-cycling mode are entered when a pre-determined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power, such as, when the predetermined switch is turned ON.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 7 Buchner discloses an electronic key system for a vehicle (Antitheft system Figure1) comprising a controller (Control unit 1) mounted in the vehicle and a portable transmitter (Key 9, is a code transmitter capable of receiving and transmitting coded signals. Since it functions as a transceiver Key 9 is called a portable transceiver, Column 3 lines 42-46) carried by a user of the vehicle, the vehicle comprising a locking unit (Door locks 2, tailgate lock 3) which locks the vehicle so that the vehicle cannot be used until a lock release command is received (Column 3, lines 53-58), the portable transmitter comprising a transmitter unit that outputs a request signal (Column 3 lines 42-46) to the controller in response to operation input by the user (The user manually activates the switch 7, in order for the transmitter to output a request signal in response to a broadcast signal sent by the control unit 1), and wherein

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the controller comprises: a receiving circuit (transceiver unit in control unit 1) that receives the request signal from the portable transmitter; a receiver which receives via the receiving circuit the request signal from the portable transmitter in response to an ON operation of a switch which detects that the user has boarded the vehicle (monitoring device, which includes a seat occupation detection device, ultrasonic sensors or infrared sensors detect the presence of a person in the interior, col. 2 lines 23-32, in response to the monitoring device the transceiver unit in the vehicle detects/communicates with the portable transmitter col. 2 lines 1-7); a drive unit (a drive unit is inherently provided, since locking and unlocking is performed, there is also a mechanism that releases the steering lock or immobilizer) which outputs a lock release command to the locking unit (Column 3 lines 53-55) when the request signal is compared and judge to be a request from the user.

However, Buchner does not disclose expressly that a switching unit which permits an intermittent supply of power to be provided to a receiving circuit inside the controller (duty-cycling mode supply to receive circuitry 56) if the vehicle is not started for a predetermined period of time; and a switching unit controller which permits the switching unit to provide a normal supply of power to the receiving circuit in response to ON operation of the switch.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period (as disclosed in the background), and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON mode, a sleep mode and a duty-cycling mode

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(control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41, see abstract). The sleep mode and the duty-cycling mode are entered when a pre-determined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner, namely in an intermittent manner.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 10 Buchner discloses an electronic key system for a vehicle including a controller mounted in the vehicle (Control unit 1) and a portable transceiver (Key 9, is a code transmitter capable of receiving and transmitting coded signals. Since it functions as a transceiver Key 9 is called a portable transceiver, Column 3 lines 42-46) carried by a user of the vehicle, the vehicle comprising a locking unit (Door locks 2, tailgate lock 3) which locks the vehicle so that use of the vehicle is not possible until a lock release command is received (Column 3 lines 53-58), and wherein the controller

comprises: a transmission circuit that outputs a request signal (Column 3 lines 14-15, and lines 40-41) to the portable transceiver; a receiving circuit that receives an acknowledgement signal from the portable transceiver (transceiver in control unit 1); a transmitter that outputs the request signal via the transmission circuit to the portable transceiver in response to an ON operation of a switch, the switch detecting when the user boards the vehicle (monitoring device, which includes a seat occupation detection device, ultrasonic sensors or infrared sensors detect the presence of a person in the interior, col. 2 lines 23-32, in response to the monitoring device the transceiver unit in the vehicle detects/communicates with the portable transmitter col. 2 lines 1-7); a receiver which receives the acknowledgement signal via the receiving circuit, the acknowledgement signal being outputted from the portable transceiver in response to the request signal from the transmitter (col. 4 lines 7-15, in response the monitoring device communication is started between control unit 1 and the portable transceiver); a drive unit (a drive unit is inherently provided, since locking and unlocking is performed, there is also a mechanism that releases the steering lock or immobilizer) which, when the acknowledgement signal is compared and judged to be a request from the user, outputs a lock release command to the locking unit (Column 3 lines 53-55).

However, Buchner does not disclose expressly an interrupting unit which prevents, if the vehicle is not started for a specified period of time, the supply of power to a transmission circuit and a receiving circuit, inside the controller; and an interrupting unit controller which permits the interrupting unit to provide power to the transmission circuit and the receiving circuit in response to an ON operation of the switch.

Desai, however, discloses a power-save period intended to be used when a vehicle is inactive for a very long time period, and a receiver/controller (18) and power control circuitry (62) for conservation of power, which operates in three modes, a full ON mode, a sleep mode and a duty-cycling mode (control circuitry 62 interrupts the supply of power to the receive circuitry inside the receiver/controller 18 during the sleep mode, Column 6 lines 64-65). The full ON mode is entered upon detection of a transmitted signal from transmitter 14, and other wise it remains in the sleep mode or the duty-cycling mode (Column 6 lines 18-26, lines 29-41). The sleep mode and the duty-cycling mode are entered when a pre-determined time has elapsed (Figure 4, Column 7 lines 41-58).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power.

The suggestion or motivations for doing so are to obtain a safer and reliable security system for a vehicle when in a stand by mode; also to provide a system that saves the vehicles power by using an interrupting unit that puts the circuit in a stand by mode.

With respect to claim 12 Buchner in view of Desai disclose the electronic key system for a vehicle according to claim 10, further comprising: a switching unit Desai (control circuitry 62) which permits an intermittent (duty-cycling) supply of power to be provided to the transmission circuit and the receiving circuit, inside the controller (Power

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control circuitry 62 controls the power being supplied to the receiver/controller 18), that perform communication if the vehicle is not started for a specified period of time (the main purpose of the invention disclosed by Desai is to save power when a vehicle is inactive for a very long time period); and a switching unit controller (control circuitry 62) which permits the switching unit to provide a normal supply of power to the transmission circuit and the receiving circuit in response to the ON operation of the switch when the user boards the vehicle (As disclosed by Buchner).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the Desai power saving invention into the Buchner electronic key system for the purpose of obtaining an interrupting unit that supplies power to the receive circuitry in a pre-determined manner to save power. The power to the transmission circuit being supply in response to the ON operation of the switch disclosed by Buchner.

Allowable Subject Matter

4. Claims 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18 and 19 are allowable over the prior art of record, because the prior art of record does not disclose that "no power to the transmission circuit and the receiving circuit for an indefinite period of time after the specified period of time has elapsed".

Along with the remaining features of the claim.

Response to Arguments

5. Applicant's arguments filed 12/27/2006 have been fully considered but they are not persuasive.

With respect to the argument that Buchner does not disclose that the transmitter outputs a request signal in response to an on operation of a switch for detecting that the user has boarded the vehicle. It is respectfully submitted that Buchner discloses an interior monitoring devices to monitor a person inside the car and the transceiver 9; thus once the monitoring device is activated (the switch is activated by detecting that the user has boarded the vehicle) it activates the control unit 1 (the transmitter in control unit 1) it start a dialogue between the key 9 and control unit 1, col. 4 lines 7-15, in response the monitoring device communication is started between control unit 1 and the portable transceiver.

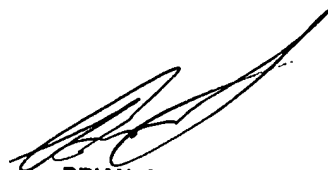
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Amaya whose telephone number is (571) 272-8941. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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